

Claims:

1. A device for stabilizing a fixation pin implanted in a fractured bone, the fixation pin having a first portion, a second portion, and a bent portion between the first and second portions, said device comprising:

a sleeve having a tubular proximal portion and a distal portion including a channel with an open surface provided with a plurality of resilient catches,

said proximal portion sized to receive the first portion of pin.

2. A device according to claim 1, wherein:

said catches are adapted to at least partially engage the bent portion of the fixation pin.

3. A device according to claim 1, wherein:

said distal portion includes a distalmost cutting edge.

4. A device according to claim 2, wherein:

said distal portion includes a ramped portion between said cutting edge and said catches.

5. A device according to claim 1, wherein:

a plurality of pairs of said catches are longitudinally arranged along said open surface of said channel.

6. A device according to claim 1, wherein:

a plurality of said catches includes a ramped portion.

7. A device according to claim 1, further comprising:

a handle coupled to said proximal end of said sleeve.

8. A device according to claim 1, wherein:

said tubular proximal portion has an inner diameter of approximately 0.0625 inches.

9. A locking device for stabilizing a fixation pin having a first portion, a second portion and a bent portion therebetween, comprising:

a) first means for receiving the first portion of the fixation pin;

b) second means for lockably holding the bent portion of the fixation pin; and

c) third means for cutting bone,

said first, second and third means having a unitary construct.

10. A locking device according to claim 9, wherein:

the bent portion defines a 90° to 110° angle between the first and second portions.

11. A locking device according to claim 9, wherein:

said second means lockably holds the second portion of the fixation pin in one of a plurality of positions relative to said third means.

12. A locking device according to claim 9, wherein:

said second means substantially prevents both longitudinal and rotational movement of said pin.

13. A locking device according to claim 9, wherein:

said unitary construct is single tubular element.

14. An assembly of a locking device and a fixation pin, comprising:

a) a locking device including a proximal tubular portion and a distal portion including a channel with an open surface, said open surface provided with at least one lock portion; and

b) a fixation pin having a bent portion defining first and second portions angled relative to each other,

wherein said first portion of said pin at least partially extends within said tubular portion, and said bent portion extends

within at least one of said at least one lock portion such that longitudinal and rotational movement of said fixation pin relative to said sleeve is substantially prevented.

15. An assembly according to claim 14, wherein:

each of said at least one lock portion includes a plurality of catches.

16. An assembly according to claim 14, wherein:

said distal portion includes a distalmost cutting edge.

17. An assembly according to claim 16, wherein:

said distal portion includes a guide portion between said cutting edge and said catches.

18. An assembly according to claim 14, further comprising:

c) a cap adapted to positioned over a cut end of said locking device.

19. A method of stabilizing a fixation pin extending through the skin and into a bone, said method comprising:

a) inserting a fixation pin into a fractured bone, the pin including a first portion extending upward through the skin and a second portion extending longitudinally through the bone, and a bent portion therebetween;

b) providing a locking sleeve having a tubular proximal portion and a distal portion including a channel with an open surface, said open surface provided with at least one lock portion;

c) manipulating the locking sleeve around the first portion of the pin; and

d) pushing the locking sleeve into the bone at least until the at least one lock portion locks about the second portion of the pin.

20. A method according to claim 19, wherein:

said locking sleeve includes a distal cutting edge, and said pushing includes pushing the locking sleeve into the bone until the cutting edge moves across a medullary canal of the bone and contacts a cortex of the bone.

21. A method according to claim 19, further comprising:

e) cutting the locking sleeve to provide a cut end of the locking sleeve below the skin.

22. A method according to claim 21, further comprising:

f) positioning a cap over the cut end of the locking sleeve.